

AMENDMENTS TO THE SPECIFICATION:

(1) Please amend the paragraph on page 2, lines 5-20, as follows:

The object of the present invention is to eliminate or alleviate the above mentioned drawbacks and to provide a method of manufacturing a mold tool having an anti-adhesive layer which is stable and has good anti-adhesive characteristics. The object is obtained according to the invention by a method of manufacturing a mold tool, ~~adapted for forming a structured nano scale pattern on an object, and having a layer, which layer is anti-adhesive with regard to the object, said method being characterised by the steps of~~

~~providing a stamp blank with a surface of a structured pattern,~~

~~coating the patterned surface with a metal layer, which metal layer has a stable oxidation number and is capable of forming a stable oxide film,~~

~~oxidation of the metal layer thereby forming an oxide film, and~~

~~contacting the oxide film with at least one reagent comprising molecule chains which each has a linkage group which bonds, by chemical bonding, preferably a covalent bond, with the oxide film, wherein the molecule chains either initially comprise at least one fluorine comprising group or are provided with at least one such group in a subsequent treatment adapted to be used for forming a structured nano scale pattern on an object and having a layer, which is~~

anti-adhesive with regard to the object, said method comprising the following steps: providing a stamp blank with a structured pattern on a surface, depositing a layer of a metal chosen from titanium, zirconium, niobium, tantalum, and aluminium, and mixtures thereof, on the patterned surface, said metal having a stable oxidation number, oxidising the layer of metal to form a mechanically stable oxide film, and applying at least one reagent on the oxide film, said reagent comprising molecule chains, each having a linkage group, which is chemically bonded with the

oxide film, wherein the molecule chains either from the beginning comprise at least one group comprising fluorine, or are provided with at least one such group in a subsequent treatment.

(2) Please amend the paragraph on page 2, lines 21-32, as follows:

Another object of the present invention is to provide a mold tool having an anti-adhesive layer, which is stable and has good anti-adhesive characteristics. This object is obtained by means of a mold tool ~~to be used for forming a structured nano scale pattern on an object, and which has a layer which is anti adhesive with regard to the object, said mold tool being characterised in that it comprises a stamp blank having a structured pattern on its surface, and a metal layer having a stable oxidation number and which is capable of forming a mechanically stable oxide film, where said metal layer has been applied on said surface and thereafter oxidised for forming a mechanically stable oxide film, wherein the anti adhesive layer comprises molecule chains each having at least one linkage group which by chemical bonding, preferably by a covalent bond, is bonded with the oxide film, and at least one fluorine comprising group adapted to be used for forming a structured nano scale pattern on an object, comprising: a stamp blank having a structured pattern on its surface, and an anti-adhesive layer, which is anti-adhesive with regard to the object, comprising molecule chains, each having at least one linkage group and at least one group comprising fluorine, a layer of metal disposed intermediate to the stamp blank and the anti-adhesive layer, the layer of metal comprising at least one of aluminium, zirconium, tantalum, niobium, and titanium, the layer of metal being oxidised to form a mechanically stable oxide film to which the at least one linkage group is chemically bonded.~~

(3) Please delete the paragraph beginning on page 2, line 33, and ending on page 3, line 1.

~~Another object of the invention is to provide a storage medium, such as an optical storage medium, such as a CD or DVD or a disc with even finer structures, or a magnetical storage medium, such as a hard disc, which medium has a structured pattern which has not been damaged due to adhesion to a mold tool when the structured pattern was produced, wherein the medium is of high quality. This object is obtained according to the invention by means of a storing medium, such as a CD or DVD or hard disc, characterised in that a mold tool according to the above has been used for forming a structured pattern on the medium.~~

(4) Please amend the paragraph on page 3, lines 22-28, as follows:

Another example of nano scale pattern transfer is the manufacturing of CDs and DVDs. The method for manufacturing CDs is described e.g. in "The compact disc handbook" by C. Pohlmann, ~~second~~ second edition, A-R Editions Inc., ISBN 0-89579-300-8, p. 277. This manufacturing method makes use of a mold in which a board of polycarbonate is molded. A mold tool in form of a nickellic stamp with a pattern is inserted into a wall in the mold to form a desired pattern on the CD or DVD.

(5) Please amend the paragraph on page 4, lines 9-17, as follows:

In a first step a stamp blank, the surface of which has been provided with a structured pattern in a known manner, e.g. by etching or molding in a mold having a pattern, is used. Suitable materials for the stamp blank are e.g. nickel, chromium, ~~silicene~~ silicon, ~~silicene~~ silicon dioxide, ~~silicene~~ silicon carbide, tungsten oxide, diamond, different polymers, semi-conducting materials, such as GaAs, InP, GaInP, GaInAs, ZnS, and mixtures of these materials. Particularly

preferred materials for the manufacturing of a stamp are ~~silicone~~ silicon and nickel, since these materials are easily patterned and have high hardness and are durable. The stamp blank may also comprise a layer of nickel, which has been applied on a base plate of ~~silicone~~ silicon.

(6) Please amend the paragraph on page 15, lines 20-30, as follows:

Fig. 1 shows a stamp 1 to be used for nano-imprint lithography. The stamp 1 has a stamp blank 2 of nickel. The stamp blank 2 has been manufactured by electroplating of a structured ~~silicone~~ silicon disk and thereby obtained a number of protrusions, in Fig. 1 schematically shown as one protrusion having a height HU of about 200 nm and a width BU of about 200 nm. A titanium layer 6 has been applied on the surface 8 of the stamp blank 2 by the above-described evaporation in vacuum. The titanium layer 6 has a total thickness HT of 10 nm. The titanium layer 6 has formed an oxide film 10 when in contact with the filtered surrounding air, as is best seen in Fig. 2. The oxide film 10 has a thickness HO of about 5 nm. Under the oxide film 10 titanium is still present in a metallic form and forms a metallical layer 12, which holds the titanium layer 6 to the surface 8 of the stamp.

(7) Please amend the paragraph on page 16, lines 17-28, as follows:

A stamp blank of nickel was used to make a stamp blank, which stamp blank was provided by electro-plating of a structured ~~silicone~~ silicon disc for forming a structured nano scale pattern suitable for the production of optical storage media, such as CDs and DVDs. The pattern had protrusions with a typical width of 200-600 nm and a height of 150 nm. The stamp blank was washed with a mixture comprising 15 vol-% NH₃, 70 vol-% H₂O and 15 vol-% H₂O₂. The stamp blank was thereafter placed in an oven, which was evacuated to a pressure of 0.013 Pa. The oven was thereafter furnished with evaporated titanium during measurement of

the thickness of the titanium layer on the stamp blank. When the layer had a thickness of about 10 nm the treatment was stopped and the stamp equipped with a titanium layer was taken out of the oven. When the stamp was taken out into the air of the room an almost immediate oxidation of the surface of the titanium layer took place.